

REMARKS

The August 23, 2005 Office Action has been carefully considered. A petition is filed concurrently herewith requesting withdrawal of that incomplete premature final Action. Entry of the amendments to the claims, as a matter of right upon withdrawal of finality of the Action, is respectfully requested. Prompt favorable reconsideration based on the amended set of claims is earnestly solicited.

The August 23, 2005 Action included a rejection of claims 5-13 under the first paragraph of 35 U.S.C. § 112 on the grounds that the previous language of those claims was not supported in the original written description. The Examiner apparently took the position that the description in this case did not specifically teach that the coded preamble signal indicates a request to access an uplink channel selected by the remote station from among a plurality of channels assigned to a base station of the network. This rejection is respectfully traversed.

It is believed that the relationship of the preambles to the uplink codes (that define the channels in the disclosed direct sequence spread spectrum system) should have been self explanatory. However, to avoid confusion on the point, claim 5 has been amended so that the wording thereof corresponds more precisely to the terminology used in the description.

Claim 5 now recites that the one coded preamble signal corresponds to one of a plurality of spreading codes assigned to the base station for use on uplink communications to the base station. The claim later recites that the received spread spectrum signal has been spread with the one spreading code corresponding to the received coded preamble signal. The detailed description clearly states that there is a spreading code for uplink message transmission that corresponds to each preamble code (application page 26, lines 6-8).

New claim 24 recites broadcasting a control channel, including data regarding the plurality of coded preamble signals assigned to the base station. The step recited in this new dependent claim encompasses the disclosed arrangement in which a base station is assigned a subset of preambles from the set of all preamble waveforms in the system, and the base station broadcasts the set of preambles that the base station is using through its BCCH channel (see paragraph starting on line 24 of page 18, of the original application text).

It is respectfully submitted that amended claim 5 and dependent claims 6-14 and 24 are fully supported by the written description of the original application papers. Applicants therefore request that the Examiner withdraw the rejection under the first paragraph of 35 U.S.C. § 112.

New claim 25 depends from claim 19, but claim 24 recites broadcasting data regarding a plurality of preambles assigned to the base station for use in accessing uplink communications to the base station. It is respectfully submitted that new claim 25 is supported by the written description, e.g. the paragraph starting on line 24 of page 18, of the original application text.

Claims 12 and 13 were rejected as indefinite, because claim 12 depended from itself. As amended above, claim 12 now depends from claim 11, which should eliminate the noted indefiniteness. Withdrawal of the indefiniteness rejection is respectfully requested.

Claims 5-22 stand rejected under 35 U.S.C. § 103 as unpatentable over US patent number 6,236,646 to Beming et al. (hereinafter Beming) in combination with US patent number 6,606,313 to Dahlman et al. (hereinafter Dahlman).

In the Beming patent, a mobile station 16 first transmits a message over a random access channel (RACH) to the base station 12 (Fig. 2 step 100), which includes either the data packet itself (if short) or an indication of the length of the data packet to be sent. Assuming the packet is not included, the base station 12 responds by transmitting an access grant (AG) message to the

mobile station 16 over the access grant channel (AGCH) (step 106). The access grant message includes information identifying the uplink mobile station code (traffic) channel (TCH) to be used for transmitting the data packet, and the downlink channel where the uplink scheduling channel (USCH) is located. A determination is then made by the system as to the number of frames needed to transmit the mobile station data packet (step 108), and a schedule of authorized mobile station accesses for a next frame is determined (step 110). In response to the access grant message, the mobile station 16 accesses the uplink scheduling channel, and receives authorized frame timing (i.e., the schedule of times in an upcoming frame or frames) in a transmitted uplink scheduling (US) message (step 112). If the mobile station 16 is allowed access, as indicated by the received uplink scheduling message, the mobile station accesses the uplink traffic channel (TCH) specified by the grant message, and transmits the data packet (or a portion thereof) in that next frame (step 116). The rejection alleges that adding a step of receiving a power control signal from the mobile station to Beming would have been obvious in view of Dahlman.

Applicants respectfully traverse the art rejection.

Independent claim 5 recites receiving a power control signal from the remote station at the base station, receiving a spread-spectrum signal containing data, and transmitting a spread-spectrum signal intended for the remote station from the base station at a power level based on the received power control signal. It is respectfully submitted that the applied combination of Beming and Dahlman would not include this claimed power control based on receiving a power control signal from the remote station, which may be before reception of the upstream spread spectrum signal containing data from the remote station. The rejection takes the position that the Beming procedure meets the claim limitations except for base station use of a power control signal received from the remote station but that Dahlman's teaching of closed loop power control

would lead one skilled in the art to modify Bemming to add such a feature. The power control recited in claim 5 controls transmission from the base station. The closed loop control power control disclosed in Dahlman, however, relates to closed loop control of the power level for transmissions from the mobile station (see e.g. column 1, lines 50-55). It is not seen (and the rejection has not identified) where Dahlman suggests power control of base station transmissions intended for the mobile station. Adding power control of the mobile station transmission (Dahlman) to Bemming might result in a system with closed loop power control of the mobile station, but such a combination would not result in an operation with the power control of the base station transmission recited in claim 5. Specifically, there would not be any reception of a power control signal from the remote station at the base station, or the attendant transmitting of a spread-spectrum signal intended for the remote station from the base station at a power level based on the received power control signal.

Applicants therefore submit that Bemming and Dahlman do not render claim 5, as a whole, obvious. Hence, the art rejection should be withdrawn, with respect to claim 5 and dependent claims 5-14 and 24.

It is respectfully submitted that the dependent claims recite additional distinctions. For example, it is not seen where either Bemming or Dahlman discloses reception of a collision detection signal from the remote station and attendant transmission back of a corresponding collision detection response signal, upon receipt of the coded collision detection signal, as recited in claim 6. These steps are in addition to the preamble reception and acknowledgement transmission of parent claim 5. It is believed that, contrary to the allegation in the rejection, such an additional collision detection phase is not inherent in the slotted ALOHA communications discussed in Dahlman. If the Examiner believes that the claimed steps are somehow inherent,

the Examiner should come forward with evidence as to how/why one of skill in the art might have understood the presence of such additional reception and transmission steps from the disclosure of the Dahlman patent. As another example, claim 24 recites broadcasting a control channel, including data regarding the plurality of coded preamble signals assigned to the base station, which also appears to be absent from the teachings of Beming and Dahlman.

For at least the reasons outlined above, it is submitted that claims 5-14 and 24 patentably distinguish over the applied documents.

Claim 15 specifies transmitting a base station power control signal and packet data to the base station over the spread-spectrum uplink channel. Claim 15 also has been amended to include the recitation from claim 16 that the transmission of the power control signal to the base station precedes the transmission of the packet data. It is respectfully submitted that the Beming and Dahlman documents do not fairly suggest the recited pre-data power control for the base station. As noted above, the Examiner interprets Beming as disclosing no base station power control but alleges that such would be obvious from Dahlman. Dahlman, however, apparently discloses only closed loop control of the mobile station. As such, there appears to be no teaching in either applied document of transmitting a base station control signal to the base station, before transmission of the packet data to the base station, as in claim 15. Applicants therefore submit that Beming and Dahlman do not render claim 15, as a whole, obvious. Hence, the rejection of claim 15 and dependent claims 17-18 should be withdrawn.

Claim 19 recites a step of receiving a power control signal from the one authorized remote station, at the base station. The next transmitting step, that is to say for transmitting a power control signal intended for the remote station, from the base station, involves transmission at a power level based on the power control signal received in the preceding receiving step. It is

respectfully submitted that the Beming and Dahlman combination would not lead to such power control of a transmission from the base station, that is to say, at a power level based on the received power control signal. As noted above, the Examiner interprets Beming as disclosing no base station power control but alleges that such would be obvious from Dahlman. Dahlman, however, apparently discloses only closed loop control of the mobile station. As such, there appears to be no teaching in either applied document of base station reception of a power control signal from the remote station, and then transmitting a power control signal intended for the remote station, from the base station, at a power level based on the received power control signal, as in claim 19. Applicants therefore submit that Beming and Dahlman do not render claim 19, as a whole, obvious. Hence, the rejection of claim 19 and dependent claims 20-23 should be withdrawn.

New claim 25 should be patentable with claim 19. In addition, claim 25 recites a further distinction over the applied documents relating to broadcasting data regarding the plurality of preambles assigned to the base station for use in accessing uplink communications to the base station, which also appears to be absent from the teachings of Beming and Dahlman.

Upon entry of the above claim amendments, claims 5-24 are active in this application, all of which should be patentable over the art applied in the latest Office Action. It is submitted that all of the claims are in condition for allowance. Accordingly, this case should now be ready to pass to issue; and a prompt favorable reconsideration of this matter is requested.

It is believed that this response addresses all issues raised in the March 10, 2005 Office Action. However, if any further issue should arise that may be addressed in an interview or an Examiner's amendment, it is requested that the Examiner telephone Applicants' representative at the number shown below.

To the extent necessary, if any, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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